

Notice of Allowability

Application No.

10/720,966

Examiner

John S. Chu

Applicant(s)

SONG ET AL.

Art Unit

1795

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 9/26/07.
2. ☒ The allowed claim(s) is/are 22-26.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

John S. Chu
Primary Examiner
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REASONS FOR ALLOWANCE

1. The following is an examiner's statement of reasons for allowance: The claimed invention is drawn to the following:

22. (Previously presented): A negative photoresist composition with multi-reaction systems, comprising the following components as a uniform solution in an organic solvent:

at least one unsaturated resin having a molecular weight in the range from 10,000 to 100,000 and an acid value between 70 and 150mgKOH/g, selected from the group consisting of homopolymers, copolymers, and combinations thereof, which the homopolymers and the copolymers are synthesized by at least one monomer selected from the group consisting of styrene, methyl styrene, acrylic acid, acrylate, methyl acrylic acid, methyl acrylate, vinyl ether, and combinations thereof;

at least one photoinitiator in an amount of 0.1 to 10 parts by weight, based on 100 parts by weight of the unsaturated resin, wherein the photoinitiator is selected from the group consisting of benzoin, benzoin alkyl ether, benzil ketals, acetophenones derivatives, benzophenone, 4,4'-dimethyl-amino-benzophenone, thioxanthenes derivatives, morpholino-1-propanone, and combinations thereof;

at least one free radical reactive monomer in an amount of 0.1 to 100 parts by weight, wherein the free radical reactive monomer is selected from the group consisting of tetraethylene glycol diacrylate, tetraethylene glycol dimethacrylate, neopentylglycol diacrylate, neopentylglycol dimethyl acrylate, polyethylene glycol diacrylate,

None of the prior art references of record disclose or render obvious the recited negative photoresist composition as recited above wherein the composition includes the claimed epoxy resin and resin hardener .

Accordingly, claims 22-26 are seen as allowable and passed to issue.

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2. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Chu whose telephone number is (571) 272-1329. The examiner can normally be reached on Monday - Friday from 9:30 am to 6:00 pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Cynthia Kelly, can be reached on (571) 272-1526

The fax phone number for the USPTO is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PMR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/John S. Chu/
Primary Examiner, Group 1700

J.Chu
December 9, 2007